

# Parallels Command Line

Reference Guide

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Parallels Holdings, Ltd.
c/o Parallels Software, Inc.
13755 Sunrise Valley Drive
Suite 600
Herndon, VA 20171
USA
Tel: +1 (703) 815 5670

*Tel:* +1 (703) 815 5670 *Fax:* +1 (703) 815 5675

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#### CHAPTER 1

# Introduction

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### **About Parallels Command Line Tool**

The prictl Parallels Command Line Tool is a utility enabling you to manage computers running the Parallels Server or Parallels Desktop software and virtual machines hosted on these computers right from the command line, without need to use the Parallels Server or Parallels Desktop GUI components.

You can run this utility from the command prompt or inlude the prlctl utility calls in your automation scripts.

### **About This Guide**

### Organization of This Guide

Chapter 2, prictl Basics, familiarizes you with the basics of the prictl utility functioning.

Chapter 3, prictl Parameters, describes all available prictl commands together with the options and switches that can be passed to them.

### **Documentation Conventions**

The table below presents the conventions used in this guide.

Fonts	This font	Used for buttons, options, menus and menu commands, windows, and dialog boxes.
	This font	Used for keys, paths, and folder names.
	This font	Used for console commands.
	This font	Used for tips, glossary items and options or modes mentioned in the text.

Type Styles	Note:	Used to emphasize the message.
	Warning:	Used to warn you about possible data loss.
Key Combinations	<key>-click</key>	Used to direct you to press the key and click the mouse button.
	<key>+<key></key></key>	Used to direct you to press the keys simultaneously.

# **Getting Help**

# **Feedback**

If you spot a typo in this guide, or if you have thought of a way to make this guide better, we would love to hear from you!

The Parallels documentation forum is the ideal place for your comments and suggestions. It is regularly monitored by the members of the Parallel technical documentation department, so it is likely that you will receive a reply to your post before long.

Note that new users will be asked to fill in a short registration form before being able to post. Registering will allow you to participate not only in the documentation forum discussions, but in all the other Parallels forums as well.

#### CHAPTER 2

# prictl Basics

The prlctl Parallels Command Line Tool is a utility enabling you to manage computers running the Parallels Server or Parallels Desktop software and virtual machines hosted on these computers right from your command line utility, without need to use the GUI. You can use the prlctl utility in one of the following ways:

- run the utility from the command prompt or
- include special utility calls in your automation scripts.

The prlctl utility is an integral part of the Parallels Server distribution set and is provided with each of the supported platforms: Mac, Linux, and Windows. It is also available with Parallels Desktop for Mac OS X.

This utility can be used to manage:

- virtual machines on local and remote servers having the Parallels Server software installed.
- virtual machines on computers having Parallels Desktop software installed.

prictl uses the Parallels API (Application Programming Interface) to communicate with the Parallels Server and Parallels Desktop software.

### CHAPTER 3

# pricti Parameters

This chapter documents the command-line options and switches that can be used with the prlctl utility.

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# **Matrix of prictl Commands**

The prictl utility allows you to manage the Parallels Server or Parallels Desktop software and their virtual machines. It has the following syntax:

where command can be one of the following:

Group Name	Description
create	Used to create a new virtual machine.
list	Used to list the virtual machines currently registered in Parallels Server or Parallels Desktop and display detailed information on them.
register	Used to register a virtual machine in Parallels server or Parallels Desktop.
unregister	Used to remove a virtual machine from the list of virtual machines registered in Parallels Server or Parallels Desktop.
start	Used to start a virtual machine.
pause	Used to pause a virtual machine.
suspend	Used to save the current state of a virtual machine.

resume	Used to restore a virtual machine from its suspended state.
stop	Used to stop a virtual machine.
reset	Used to consecutively stop and start a virtual machine.
set	Used to manage different virtual machine parameters, including VM virtual devices.
installtools	Used to launch the installation of Parallels Tools inside a virtual machine.
clone	Used to create a clone of an existing virtual machine.
delete	Used to remove an existing virtual machine and its files from the computer it is stored on.
capture	Used to make a screen shot of a virtual machine currently running in Parallels Server or Parallels Desktop.
server	Used to display detailed information on servers that have Parallels Server installed and to shut down them.

Detailed information on each command is provided in the following subsections.

# **Server Connection Parameters**

The way the pricti utility connects to the Parallels server depends on the parameters passed to the utility during its execution:

• If no connection parameters are specified, prlctl assumes that the command is run on the local server. In this case the utility has the following syntax:

```
prlctl command [<ID|name>] [options]
```

• If you specify a user name but omit the server parameters, prlctl will run the command on the local server on behalf of the specified user. In this case it has the following syntax:

```
prlctl command [<ID|name>] [options] -l user
```

If you specify the appropriate user credentials and server parameters (i.e. the server IP address or hostname and, if necessary, the port number), prlctl will establish a connection to the specified remote server, log in to this server using the indicated user credentials, and run the command on the remote server. In this case the utility has the following syntax:

```
prlctl command [<ID|name>] [options][-l user:passwd@server

or

prlctl command [<ID|name>] [options] -p path -l user@server
```

The full list of server connection parameters that can be used with prictl is presented in the following table:

Parameter Name	Description
-1,login	Sets the login parameters for prlctl to connect to a remote Parallels server or defines the user on behalf of which the command is to be run on the local Parallels server.

user	The name of the user:
	• to log in to a remote Parallels server (if the server parameters are specified);
	• on behalf of which the command is to be run on the local Parallels server (if the server parameters are omitted).
passwd	The password for accessing the remote Parallels server.
-p,read-passwd path	The path to the file containing the password for accessing the remote Parallels server.
server	The IP address or hostname of the remote Parallels server.
-v,verbose number	Sets the verbosity level for the executed command. The greater number you specify, the more verbose output the command will produce.

# pricti create

The prlctl create command is used to create new virtual machines on Parallels Server or Parallels Desktop.

When this command is used to create a new virtual machine from scratch, the command syntax is as follows:

When this command is used to deploy a virtual machine template to a new virtual machine, the command syntax is as follows:

**Note:** To create a virtual machine template, use the prlctl clone command.

When this command is used to create a new virtual machine from an existing PVS file (virtual machine configuration file), the command syntax is as follows:

The parameters that can be used with this command are explained in the table below:

Parameter Name	Description
name	The name to be assigned to the virtual machine. If it consists of
	two or more words separated by spaces, the VM name should be
	quoted (e.g. "My Virtual Machine").

--location path

The path to the directory on the computer where all configuration files of the newly created virtual machine are to be stored. If the --location parameter is omitted, the VM files are automatically placed to the default folder for virtual machines.

The default folder on servers with Parallels Server installed:

- on servers running the MAC operating system (OS): /Users/Shared/Parallels;
- on servers running the Windows OS: C:\Documents and Settings\All Users\Documents\Parallels;
- on servers running the Linux OS: /Users/Shared/Parallels.

The default folder on computers with Parallels Desktop installed:

/Users/<Home\_folder>/Documents/Parallels

The path to the config.pvs configuration file of an existing virtual machine that you wish to use as the basis for creating a new VM.

The operating system family the guest OS you wish to install inside the virtual machine belongs to. It can be one of the following:

- windows;
- linux:
- macos;
- feebsd;
- os2;
- msdos;
- netware;
- solaris;
- other (specify this option if the operating system family you are using is not listed above).

-c, --config path

-o, --ostype name

-d, -distribution The version of the operating system to be installed inside the name newly created virtual machine. It can be one of the following:

- win-311;
- win-95;
- win-98;
- win-me;
- win-nt;
- win-2000;
- win-xp;
- win-2003;
- win-vista;
- win-2008;
- win (specify this option if the Windows OS version you are using is not listed above);
- rhel;
- suse;
- debian;
- fedora-core (specify this option for all Fedora Core distributions except for Fedora Core 5);
- fc-5;
- ubuntu;
- mandriva;
- macos-10.4;
- macos-10.5;
- freebsd-4;
- freebsd-5;
- freebsd-6;
- freebsd-7;
- freebsd;
- msdos-6.22;
- msdos (specify this option for all MS-DOS operating systems except for MS-DOS 6.22);
- os2-3;
- os2-4;
- os-45;
- ecomstation-1.1;
- ecomstation-1.2;
- os2 (specify this option for all OS/2 operating systems except for the ones listed above);
- netware-4;
- netware-5;
- netware-6;
- netware (specify this option for all NetWare operating systems except for the ones listed above);
- solaris-9;
- solaris-10;

	<ul> <li>solaris (specify this option for all Solaris operating systems except for the ones listed above);</li> </ul>
	■ qnx;
	• openstep;
	<ul> <li>other (use this option if the operating system version you are using is not listed above).</li> </ul>
ostemplate <i>name</i>	The name of the virtual machine template to be used as the basis for the virtual machine creation. If it consists of two or more words separated by spaces, the folder name should be quoted (e.g. "My Virtual Machine Template").
	You can use the prlctl listtemplate command to get the list of virtual machine templates that currently exist on the computer and can be used for the VM creation.
-v,verbose number	Sets the verbosity level for the prlctl create command. The greater number you specify, the more verbose output the command will produce.

**Note:** If you use the prlctl create command to create virtual machines on Parallels Server, all these virtual machines will be located on the server to which you are currently logged on, even if you are running the command on a remote server.

# prictl start, prictl stop, and prictl reset

These three commands have the same syntax and take no obligatorily arguments:

```
prlctl start <ID | name > [-v, --verbose number]
prlctl stop <ID | name > [--kill] [-v, --verbose number]
prlctl reset <ID | name > [-v, --verbose number]
```

The commands are used to perform the following actions:

- prlctl start is used to start a virtual machine;
- prlctl stop is used to stop a virtual machine;
- prlctl reset is used to consecutively perform the stopping and starting of a virtual machine.

The options available to the commands are explained in the table below:

Parameter Name	Description
name	The name of the virtual machine to be started/stopped/reset. You can start virtual machines that are stopped, paused, or suspended.
ID	The unique ID of the virtual machine to be started/stopped/reset. You can start virtual machines that are stopped, paused, or suspended.
	You can use the prlctl list command to learn what ID is assigned to the virtual machine.

kill	If a virtual machine becomes corrupted for some reason or other (e.g. due to an error in an application), you can use this option to forcibly stop the VM by killing all the processes running inside it.
-v,verbose number	Sets the verbosity level for the executed command. The greater number you specify, the more verbose output the command will produce.

# pricti delete

The prictl delete command is used to permanently remove any of your virtual machines and its files from the computer it is stored on. The command has the following syntax:

```
prlctl delete <ID|name> [-v, --verbose number]
```

The options available to this command are:

Parameter Name	Description
name	The name of the virtual machine to be deleted.
ID	The unique ID of the virtual machine to be deleted.
	You can use the prlctl list command to learn what ID is assigned to the virtual machine.
-v,verbose <i>number</i>	Sets the verbosity level for the prlctl delete command. The greater number you specify, the more verbose output prlctl delete will produce.

# pricti clone

The prictl clone command is used to clone a virtual machine, i.e. create an exact copy of it with a different unique ID, name, and path to its configuration files. The command syntax is as follows:

The command options are the following:

Parameter Name	Description
ID	The ID of the virtual machine to be cloned.
	You can use the prlctl list command to learn what ID is assigned to the virtual machine.
name	The name of the virtual machine to be cloned.
new_name	The name to be assigned to the cloned virtual machine.

template	Tells the prlctl clone command to create a template instead of creating a virtual machine. You can use then this template as the basis for creating new virtual machines.
	To deploy a template, use the prlctl create command.
location <path></path>	The location where all configuration files of the cloned virtual machine are to be stored. If thelocation parameter is omitted, the VM files will be placed to the default folder for virtual machines.
	The default folder on computers with Parallels Server installed:
	<ul><li>on servers running the MAC operating system (OS): /Users/Shared/Parallels;</li></ul>
	<ul> <li>on servers running the Windows OS: C:\Documents and Settings\All Users\Documents\Parallels;</li> </ul>
	<ul><li>on servers running the Linux OS: /Users/Shared/Parallels.</li></ul>
	The default folder on computers with Parallels Desktop installed:
	<pre> /Users/<user_name>/Documents/Parallels</user_name></pre>
-v,verbose <i>number</i>	Sets the verbosity level for the prlctl clone command. The greater number you specify, the more verbose output prlctl clone will produce.

# prictl list

The prlctl list command is used to display a list of virtual machines currently registered in Parallels Server or Parallels Desktop together with additional information about these virtual machines. It has the following syntax:

The options that can be used with this command are explained in the table below:

Parameter Name	Description
-a,all	Lists all virtual machines currently registered in Parallels Server or Parallels Desktop.
-t,template	Lists the templates that currently exist on Parallels Server or Parallels Desktop and that can be used as the basis for the virtual machine creation. In this case, a template denotes a folder containing one or more VM configuration files.
	To deploy a template, use the prlctl create command.
no-header	Do not display column headers.
-i,info	Displays detailed information on all virtual machines currently registered in Parallels Server or Parallels Desktop. You can specify the virtual machine ID or its name to view detailed information about this VM only.

ID	The ID of the virtual machine whose detailed information you wish to view.
name	The name of the virtual machine whose detailed information you wish to view.
-o,output <i>name</i>	This option is used to display only particular information about the virtual machine. Currently, you can use the following parameters after theoutput option:
	<ul> <li>uuid: the ID assigned to the virtual machine;</li> </ul>
	name: the name assigned to the virtual machine;
	status: the current status of the virtual machine.
	To display a number of parameters in a single output, they should be separated with commas (e.g. uuid,name).
-s,sort name	Sorts the virtual machines in the list by the specified parameter. If "-" is given before the name of the parameter, the sorting order is reversed.
-v,verbose	Sets the verbosity level for the prlctl list command. The greater number you specify, the more verbose output prlctl list will produce.

If no parameter is specified, only the currently running virtual machines will be listed.

# pricti pause, pricti suspend, pricti resume

These commands are used to pause, suspend, and resume a virtual machine, respectively. The commands have the following syntax:

```
prlctl pause <ID|name> [-v, --verbose number]
prlctl suspend <ID|name> [-v, --verbose number]
prlctl resume <ID|name> [-v, --verbose number]
```

The commands are used to perform the following actions:

- prlctl pause is used to pause the specified virtual machine;
- prlctl suspend is to save the current state of the specified virtual machine by suspending it;
- prlctl resume is used to resume the virtual machine that was suspended with the prlctl suspend command.

The options available to the commands are explained in the table below:

Parameter Name	Description
name	The name of the virtual machine to be paused/suspended/resumed.
ID	The unique ID of the virtual machine you wish to pause/suspend/resume.
	You can use the prlctl list command to learn what ID is assigned to the virtual machine.

-v, --verbose number

Sets the verbosity level for the executed command. The greater number you specify, the more verbose output the command will produce.

# prictl register and prictl unregister

The prlctl register is used to add an existing virtual machine to the list of virtual machines registered in Parallels Server or Parallels Desktop. The commands syntax is as follows:

```
prlctl register <path> [-v, --verbose number]
```

The prlctl unregister command is used to perform the opposite action: remove an existing virtual machine from the list of virtual machines registered in Parallels Server or Parallels Desktop. The commands syntax is as follows:

```
prlctl unregister <ID | name> [-v, --verbose number]
```

Options available to this command are:

Parameter Name	Description
path	The full path to the config.pvs configuration file of the virtual machine to be registered.
name	The name of the virtual machine to be unregistered.
ID	The unique ID of the virtual machine to be unregistered.
	You can use the prlctl list -i command to learn what ID is assigned to the virtual machine.
-v,verbose number	Sets the verbosity level for the executed command. The greater number you specify, the more verbose output the command will produce.

# prictl installtools

The prictl installtools command is used to install Parallels Tools in a running virtual machine. It has the following syntax:

```
prictl installtools <ID | name>
```

The options that can be used with this command are explained in the table below:

Parameter Name	Description
ID	The ID of the virtual machine where you want to install Parallels Tools.
name	The name of the virtual machine where you want to install Parallels Tools.

```
-v, --verbose Sets the verbosity level for the prlctl installtools command.

number The greater number you specify, the more verbose output prlctl installtools will produce.
```

# prictl snapshot

The prlctl snapshot command is used to make snapshots of Parallels virtual machines that are currently running in Parallels Server or Parallels Desktop. It has the following syntax:

The options that can be used with this command are explained in the table below:

Parameter Name	Description
-a,all	Lists all virtual machines currently registered in Parallels Server or Parallels Desktop.
-t,template	Lists the templates that currently exist on Parallels Server or Parallels Desktop and that can be used as the basis for the virtual machine creation. In this case, a template denotes a folder containing one or more VM configuration files.
	To deploy a template, use the prlctl create command.
no-header	Do not display column headers.
-i,info	Displays detailed information on all virtual machines currently registered in Parallels Server or Parallels Desktop. You can specify the virtual machine ID or its name to view detailed information about this VM only.
ID	The ID of the virtual machine whose detailed information you wish to view.
name	The name of the virtual machine whose detailed information you wish to view.
-o,output <i>name</i>	This option is used to display only particular information about the virtual machine. Currently, you can use the following parameters after theoutput option:
	<ul> <li>uuid: the ID assigned to the virtual machine;</li> </ul>
	<ul><li>name: the name assigned to the virtual machine;</li></ul>
	status: the current status of the virtual machine.
	To display a number of parameters in a single output, they should be separated with commas (e.g. uuid,name).
-s,sort name	Sorts the virtual machines in the list by the specified parameter. If "-" is given before the name of the parameter, the sorting order is reversed.

```
-v, --verbose Sets the verbosity level for the prlctl list command. The greater number number output prlctl list will produce.
```

If no parameter is specified, only the currently running virtual machines will be listed.

# pricti capture

The prlctl capture command is used to make screen shots of running virtual machines. It has the following syntax:

```
prlctl capture <ID|name> --file <name>
```

The options that can be used with this command are explained in the table below:

Parameter Name	Description
ID	The ID of the virtual machine whose screen you want to capture.
name	The name of the virtual machine whose screen you want to capture.
file name	The name of the file where the resulting screen shot is to be stored. You can specify the full path to the file or only its name. In the latter case, the file will be saved in your working directory.
-v,verbose number	Sets the verbosity level for the prlctl capture command. The greater number you specify, the more verbose output prlctl capture will produce.

# prictl server

The prlctl server command is used to get detailed information on the physical server with Parallels Server installed you are currently working with. You can also use this command to shut down the server. The command syntax is as follows:

```
prlctl server <shutdown|info> [-v, --verbose number]
```

The options that can be used with prlctl server are explained in the table below:

Parameter Name	Description
info	Displays detailed information on the physical server configuration.
shutdown	Shuts down the physical server.
-v,verbose number	Sets the verbosity level for the prlctl server command. The greater number you specify, the more verbose output the command will produce.

# prictl set

The prlctl set command is used for setting and configuring virtual machine parameters. It also can be used to manage the VM devices. The command has the following syntax:

```
prlctl set <ID|name> [--cpus <number>] [--memsize <number>]
        [--videosize <number>] [--description <description>]
        [--autostart <on|off|auto>] [--autostart-delay <number>]
        [--autostop <stop|suspend>] [--applyconfig <conf>]
        [--start-as-user administrator|owner|user:passwd]
        [device_management_options] [-v, --verbose number]
```

The general command options are the following:

Parameter Name	Description	
ID	The ID of the virtual machine whose parameters you wish to set/configure.	
name	The name of the virtual machine whose parameters you wish to set/configure.	
cpus number	If the Parallels server has more than one CPU installed, this option allows you to set the number of virtual CPUs to be available to the virtual machine.	
memsize number	The amount of memory that can be consumed by the virtual machine, in megabytes.	
videosize number	The amount of memory to be allocated to the virtual machine graphic card.	
description VM_description	Short description of the virtual machine.	
autostart on off auto	Defines the virtual machine start-up options:	
	• on: the virtual machine is started automatically on the Parallels server boot.	
	• off: the virtual machine is left in the stopped state on the Parallels server boot. This is the default VM start-up mode.	
	<ul> <li>auto: resume the state that the virtual machine had when the Parallels server was turned off.</li> </ul>	
	If you set this option to on or auto, you should additionally specify thestart-as-user option.	
autostart-delay number	Sets the time interval when the virtual machine is to start after the Parallels server boot.	
autostop stop suspend	Defines the action the virtual machine should perform on the Parallels server shutting down. It can be set to one of the following:	
	• stop: the virtual machine is stopped when you shut down the virtual machine.	
	suspend: the virtual machine is suspended when the Parallels server is shut down.	

```
--start-as-user S administrator|owner|use r:passwd
```

Specifies under which account the virtual machine is to be run:

- administrator: run the virtual machine as the Parallels server administrator:
- owner: run the virtual machine as its owner;
- *user*: run the virtual machine as the specified user.

--applyconfig conf

The full path to the config.pvs configuration file of an existing virtual machine you wish to base your virtual machine on.

device\_management\_optio

A group of parameters used to manage VM devices. Detailed description of all available parameters is given in the next subsection.

-v, --verbose *number* 

Sets the verbosity level for the prlctl set command. The greater number you specify, the more verbose output the command will produce.

### **Device Management Parameters**

The prlctl set command can be used to manage your virtual machine devices: hard disk drives, CD-ROM drives, floppy disks, network cards, etc. The command syntax is as follows:

```
prlctl set <ID | name> --device-add <name> <options>
prlctl set <ID | name> --device-set <name> <options>
prlctl set <ID | name> --device-del <name>
```

All device-related parameters can be subdivided into the following categories:

- parameters related to managing VM hard disk drives;
- parameters related to managing VM DVD-ROM and CD-ROM drives;
- parameters related to managing VM network cards;
- parameters related to managing VM floppy disk drives;
- parameters related to managing VM USB (Universal Serial Bus) drives;
- parameters related to managing VM serial ports;
- parameters related to managing VM parallel ports;
- parameters related to managing VM sound cards.

Each group of parameters is explained in the following subsections in detail.

**Note:** All operations on virtual machine devices (adding, modifying, or removing a device) can be performed on a stopped virtual machine only. An attempt to perform any of these operations on a running virtual machine will result in error.

### Hard Disk Drive Management Parameters

This group of parameters is used to create new virtual hard disk drives for your virtual machines and configure their properties. The parameters syntax is as follows:

All VM disk drive-related parameters are explained in the following table:

Parameter Name	Description	
device-add	Adds a virtual hard disk drive to the virtual machine. By default, the prlctl create command creates a virtual machine with only one disk drive. However, you can usedevice-add to add additional virtual disk drives to your virtual machine.	
	<b>Note:</b> You can connect up to four IDE devices and up to seven SCSI devices to a virtual machine. Any of these devices can be a virtual hard disk or DVD/CD-ROM drive.	
device-set	Used to configure certain settings of the specified VM hard disk drive.	
hdd	Informs the prlctl set command that the device to be added to the virtual machine is a hard disk drive. By default, prlctl set creates a virtual disk drive	
hddN	The name of the virtual hard disk drive whose parameters you wish to configure where $N$ denotes the disk drive index number. You can learn this number by running the prlctl list command with the $info$ option.	
device name	Tells the prlctl set command to connect the specified physical hard disk on the Parallels server to the virtual machine. Using this option allows you to run guest operating systems (e.g. Mac OS X, Linux, or Windows) from existing physical disk partitions on the Parallels server.	
	When used withdevice-set, this parameter configures the properties of the VM disk drive connected the specified physical partition.	
	You can use the prlctl server command to learn what physical hard disk drives currently exist on the Parallels server.	

--image name

The name of the file to be used for emulating the VM virtual disk drive. If this option is omitted and the --device option is not indicated either, a new file is created inside the directory storing all VM-related configuration files and assigned the name of harddiskN.hdd (where N is the index number of the newly added disk drive).

**Note:** In fact, harddiskN.hdd is a directory keeping a number of disk-related files. However, all these disk-related files are regarded by the prlctl utility as a single entity. So, for the sake of simplicity we designate these directories as files.

--type expand|plain

The type of the virtual disk drive. It can be set to one of the following:

- expanding. Virtual disks of this type are small initially and grow in size as you add data to the disk. By default, all newly created disk drives are of the 'expanding' type.
- plain. Virtual disks of this type have the fixed size from the moment of their creation. Plain disks provide enhanced performance as compared to expanding disks. Please make sure that you have enough disk space on the Parallels server before creating a plain virtual disk drive.

--size number

The size of the hard disk drive, in megabytes. By default, the size of all newly created disk drives is set to 32 Gb.

--split

Splits the hard disk drive into 2 Gb pieces. For example, you should split your virtual disk if it is stored on a file system that cannot support files larger than 2 Gb (e.g. FAT16).

--iface ide|scsi

The interface type of the VM disk drive. It can be one of the following:

- IDE (Integrated Drive Electronics) and
- SCSI (Small Computer Systems Interface).

By default, the interface type of the newly added disk drive is set to 'SCSI'.

--position *number* 

The SCSI or IDE device identifier to be used for the disk drive. The allowed ID ranges are the following:

- for IDE devices: 0:0, 0:1, 1:0, 1:1;
- for SCSI device: 0:0, 1:0, 2:0, 3:0, 4:0, 5:0, 6:0.

You can use one of the following formats for specifying IDs: ID: bus, ID-bus, ID. For example, if you specify 3:0 (or 3-0 or 3) as number for a SCSI drive, the guest OS will see the drive as having ID 3 on SCSI bus 0.

--enable

Enables the specified disk drive. All newly added disk drives are enabled by default (provided the --disable option is omitted).

--disable

Temporarily disables the operations with the specified disk drive. The disk drive itself is not removed from the virtual machine configuration.

### **DVD-ROM and CD-ROM Drive Management Parameters**

This group of parameters is used to manage virtual machine DVD-ROM and CD-ROM drives. The parameters syntax is as follows:

All VM DVD/CD-ROM drive-related parameters are explained in the following table:

Parameter Name	Description	
device-add	Adds a DVD/CD-ROM drive to the virtual machine.	
	<b>Note:</b> You can connect up to four IDE devices and up to seven SCSI devices to a virtual machine. Any of these devices can be a virtual hard disk or DVD/CD-ROM drive.	
device-set	Used to configure certain settings of the specified VM DVD/CD-ROM drive.	
cdrom	Informs the prlctl set command that the device to be added to the virtual machine is a DVD/CD-ROM drive.	
cdromN	The name of the DVD/CD-ROM drive whose parameters you wish to configure where <i>N</i> denotes the drive index number.	
	You can learn this number by running the prlctl list command with theinfo option.	
device <i>name</i>	Tells the prlctl set command to connect a physical DVD/CD-ROM drive (either on the Parallels server or on the client computer where you are running the prlctl utility) with the specified name to the virtual machine.	
image <i>name</i>	Tells the prlctl set command to connect an existing image file (either on the Parallels server or on the client computer where you are running the prlctl utility) with the specified name to the virtual machine. Currently, the following image file formats are supported: .iso,.cue,.ccd, and .dmg. Images must be non-compressed and non-encrypted.	
iface ide scsi	<ul> <li>The interface type of the DVD/CD-ROM drive. It can be one of the following:</li> <li>IDE (Integrated Drive Electronics) and</li> <li>SCSI (Small Computer Systems Interface).</li> <li>By default, the interface type of the newly added disk drive is set to scsi.</li> </ul>	

position number	The SCSI or IDE device identifier to be used for the DVD/CD-ROM drive. The allowed ID ranges are the following:  for IDE devices: 0:0, 0:1, 1:0, 1:1;  for SCSI device: 0:0, 1:0, 2:0, 3:0, 4:0, 5:0, 6:0.  You can use one of the following formats for specifying IDs: ID:bus, ID-bus, ID. For example, if you specify 3:0 (or 3-0 or 3) as number for a SCSI drive, the guest OS will see the drive as having ID 3 on SCSI bus 0.
enable	Enables the specified DVD/CD-ROM drive. All newly added DVD/CD-ROM drives are enabled by default (provided thedisable option is omitted).
disable	Temporarily disables the operations with the newly added DVD/CD-ROM drive.
connect	Use this option to have the specified DVD/CD-ROM drive automatically connected to the virtual machine on its start.
disconnect	Use this option if you do not wish to have the specified DVD/CD-ROM drive automatically connected to the virtual machine on its start.

# Floppy Disk Drive Management Parameters

This group of parameters is used to manage floppy disk drives of your virtual machines. The parameters syntax is as follows:

All VM floppy disk drive-related parameters are explained in the following table:

Parameter Name	Description
fdd	Informs the prlctl set command that the device to be added to the virtual machine is a floppy disk drive.
device-add	Adds a new floppy disk drive to the virtual machine.
	<b>Note:</b> You can connect only one floppy disk drive to a virtual machine.
device-set	Used to configure certain settings of the specified floppy disk drive.
device name	The name of the physical floppy disk drive on the Parallels server to be connected to the virtual machine. If you omit this option, a floppy drive image emulating the VM floppy disk drive will be created.
enable	Enables the specified floppy disk drive. All newly added floppy drives are enabled by default (provided thedisable option was omitted during the drive creation).
disable	Temporarily disables the operations with the specified floppy disk drive; the drive itself is not removed from the virtual machine configuration.

connect	Use this option to have the specified floppy disk drive automatically connected to the virtual machine on its start.
disconnect	Use this option if you do not wish to have the specified floppy disk drive automatically connected to the virtual machine on its start.
image path	The name of the file to be used for emulating the VM virtual floppy disk drive, usually, floppy.fdd.
recreate	Use this option to replace the image connected to the specified floppy disk drive by a blank image.
	<b>Note:</b> If you recreate the image, all data on the original floppy disk image will be lost.

### **Network Adapter Management Parameters**

This group of parameters is used to manage virtual machine network adapters. The parameters syntax is as follows:

All VM network adapter-related parameters are explained in the following table:

Parameter Name	Description
device-add	Adds a new virtual network adapter to the virtual machine.
device-set	Used to configure certain settings of the specified virtual network adapter.
net	Informs the prlctl set command that the device to be added to the virtual machine is a virtual network card.
netN	The name of the virtual network adapter whose parameters you wish to configure. You can learn this name by running the prlctl list command with theinfo option.

--type shared|host|bridged

Sets the operating mode of the virtual network adapter. Any VM network adapter can be set to function in one of the following modes:

- host. Select this option if you wish the virtual machine to communicate with the Parallels server and all virtual machines residing on this server. Access to any computers on external networks is not allowed.
- bridged. Select this option if you wish the virtual machine to access other computers on your local network and in the Internet by means of one of the physical Ethernet adapters installed on your Parallels server.
- shared. Select this option if you wish to enable the Network Address Translation (NAT) feature for your virtual machine. In this case the virtual machine will share one and the same IP address with the Parallels server when connecting to external networks.

--iface name

The name of the physical network adapter on the Parallels server to be used for connecting the VM virtual adapter to your local network and the Internet.

--mac addr

The MAC address to be assigned to the virtual network adapter. If you omit this option, the MAC address will be automatically generated by the Parallels Server software.

--mac *addr* auto

Use this option with --device-set to make the Parallels Server software regenerate the MAC address assigned to the specified virtual network adapter.

--enable

Enables the virtual network card. All newly created network adapters are enabled by default (provided the --disable option is omitted).

--disable

Temporarily disables the operations with the newly added network adapter; the adapter itself is not removed from the virtual machine configuration.

**Note:** If you start a virtual machine having one or more network adapters disabled, you will be able to enable these adapters only after the VM stopping.

--connect

Use this option to have the specified network adapter automatically connected to the virtual machine on its start.

--disconnect

Use this option if you do not wish to have the specified network adapter automatically connected to the virtual machine on its start.

# **Serial Port Management Parameters**

This group of parameters is used to manage serial port settings of your virtual machines. The parameters syntax is as follows:

All VM serial port-related parameters are explained in the following table:

Parameter Name	Description	
device-add	Adds a new serial port to the virtual machine.	
	Note. You can connect up to four serial ports to a virtual machine.	
device-set	Used to configure certain settings of the specified serial port.	
serial	Informs the prlctl set command that the device to be added to the virtual machine is a serial port.	
device <i>name</i>	The number of the serial port on the Parallels server where the newly created VM serial port is to be connected.	
output file	The path to the output file where the newly created VM serial port is to be connected.	
socket <i>name</i>	The name of the physical socket on the Parallels server where the newly created VM serial port is to be connected.	
enable	Enables the VM serial port. All newly added serial ports are enabled by default (provided thedisable option is omitted).	
disable	Temporarily disables the operations with the newly added serial port.	
connect	Use this option to have the specified serial port automatically enabled inside the virtual machine on its start.	
disconnect	Use this option if you do not wish to have the specified serial port automatically enabled inside the virtual machine on its start.	

# **Parallel Port Management Parameters**

This group of parameters is used to manage parallel port settings of your virtual machines. The parameters syntax is as follows:

All parallel port-related parameters are explained in the following table:

Parameter Name	Description	
device-add	Adds a new parallel port to the virtual machine.	
	<b>Note</b> . You can connect up to three parallel ports to a virtual machine.	
device-set	Used to configure certain settings of the specified parallel port.	
parallel	Informs the prlctl set command that the device to be added to the virtual machine is a parallel port.	
parallel <i>N</i>	The name of the parallel port whose parameters you wish to configure. You can learn this number by running the prlctl list command with theinfo option.	
device <i>name</i>	Connects the VM virtual parallel port to the specified parallel port on the Parallels server.	
output file_name	Connects the VM virtual parallel port to a file with the name of <file_name> on the Parallels server.</file_name>	
enable	Enables the specified parallel port. All newly added parallel ports are enabled by default (provided thedisable option was omitted during the port creation).	
disable	Temporarily disables the operations with the specified parallel port; the port itself is not removed from the virtual machine configuration.	
connect	Use this option to have the specified parallel port automatically enabled inside the virtual machine on its start.	
disconnect	Use this option if you do not wish to have the specified parallel port automatically enabled inside the virtual machine on its start.	

### **USB Port Management Parameters**

This group of parameters is used to manage USB controller settings of your virtual machines. The parameters syntax is as follows:

All USB controller-related parameters are explained in the following table:

Parameter Name	Description	
usb	Informs the prlctl set command that the device to be added to the virtual machine is a USB controller.	
	<b>Note</b> : A virtual machine can use only one USB controller. However, you can connect up to eight USB 2.0 ports and two USB 1.0 ports to the virtual machine.	
enable	Enables the specified USB controller. All newly added USB controllers are enabled by default (provided thedisable option is omitted).	
disable	Temporarily disables the operations with the specified USB controller.	
connect	Use this option to have the specified USB controller automatically enabled inside the virtual machine on its start.	
disconnect	Use this option if you do not wish to have the specified USB controller automatically enabled inside the virtual machine on its start.	

### **Sound Device Management Parameters**

This group of parameters is used to manage sound device settings of your virtual machines. The parameters syntax is as follows:

All VM sound device-related parameters are explained in the following table:

Parameter Name	Description	
sound	Informs the prlctl set command that the device to be added to the virtual machine is a sound card.	
output name	The name of the output device on the Parallels server.	
input name	The name of the input device on the Parallels server.	
enable	Enables the specified sound device. All newly added sound devices are enabled by default (provided thedisable option is omitted).	
disable	Temporarily disables the operations with the specified sound device.	
connect	Use this option to have the sound card automatically enabled inside the virtual machine on its start.	

--disconnect

Use this option if you do not wish to have the sound card automatically enabled inside the virtual machine on its start.

### **Removing Devices from Virtual Machine**

The --device-del option is used to remove virtual devices that you do not need any more from your virtual machines. It has the following syntax:

```
prlctl set <ID | name> --device-del <name>
```

--device-del requires only the name of the device to successfully remove it from the specified virtual machine. You can use the prlctl list command to get the list of devices currently existing inside your virtual machine.

### CHAPTER 4

# Glossary

This glossary defines terms and spells out abbreviations used in Parallels Server help and Parallels Server User Guide. References to terms defined elsewhere in the glossary appear in *italics*.

Administrator. A user with server administration privileges.

Bridged networking. Virtual machine network connection mode that enables the virtual machine to appear as any other computer on the network, with it own IP address and network name.

Client computer. A computer that has *Parallels Management Console* installed.

Client operating system (client OS). An operating system of a remote client computer where *Parallels Management Console* is installed.

Configuration file. See *PVS file*. Configuration file specifies virtual machine's devices and resources. It is created automatically when you create a new virtual machine.

**Expanding format.** A virtual hard disk format. An expanding virtual hard disk image file resides on your host computer and is small initially. Its size grows as you add applications and data to the virtual hard disk in the *guest OS*.

Guest operating system (guest OS). Operating system that runs under the virtual machine control.

HDD file. A virtual hard disk file used by the virtual machine.

Host computer. A physical server Parallels Server application is installed on. This computer hosts Parallels Server virtual machines files.

Host-only networking. Virtual machine network connection mode that create a private network between the host computer and its virtual machines, which makes the virtual machine available from the host computer only.

Localhost. Physical computer where both Parallels Server and Parallels Management Console, that you use to manage virtual machines, are installed.

Parallels Server. Application that enables the user to create *virtual machines* and run them.

Parallels Management Console. Parallels Server client application that provides graphical user interface for managing Parallels Server, its virtual machines, preferences, and settings.

Plain format. A virtual hard disk format. A plain virtual hard disk image file resides on your host computer and has a fixed size that cannot be changed.

Preboot Execution Environment (PXE). An environment to boot computers using a network interface independently of available data storage devices (like hard disks) or installed operating systems.

Primary operating system (primary OS). An physical computer operating system where Parallels Server application is installed.

PVS file. A virtual machine *configuration file* that contains information about the virtual machine resources, devices and other settings.

Shared networking. Virtual machine network connection mode that allows the virtual machine to use the host computer network connections.

Virtual hard disk. A file or a group of files that emulates virtual machine's hard disk.

Virtual Machine. A virtualized PC environment in which an operating system can be installed and run just like in a physical computer.

Virtual machine files. Files stored in the virtual machine folder. Virtual machine has at least two files: *configuration file* and *virtual hard disk* file.

Virtual machine template. A virtual machine that can be cloned to multiple virtual machines that will have the same configuration that the virtual machine template had.

VM. See Virtual Machine.

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